

November 11, 2013

**VIA ELECTRONIC FILING**

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, S.W.  
Washington, D.C. 20554

Re: Modernizing the E-Rate Program for Schools and Libraries, WC Docket No. 13-184

Dear Ms. Dortch:

On November 8, 2013, Keith Kruger (Executive Director, Consortium for School Networking), Sheryl Abshire (Chief Technology Officer in the Calcasieu Parish School System, Lake Charles Louisiana), and Reg Leichty (Partner, EducationCounsel) met with Lisa Hone, Charles Eberle, Mark Nadel, Dania Ayoubi, Soumitra Das, Mark Walker, David Strickland, and Cara Voth of the Wireline Competition Bureau, and Michael Steffen of the Office of Strategic Planning.

Our presentation focused on the *CoSN 2013 E-rate and Broadband Survey 2013*, which was filed on November 8, 2013 as part of the official record of this proceeding. The survey was based on 469 responses provided by school district leaders from 44 states. We presented data regarding district leaders' broadband capacity, needs, priorities, barriers, costs and use of the E-rate program. In addition, we recommended that the Commission explore key improvements to the program, including increased funding for capital and ongoing expenses, model technology-neutral network designs, and incentives for consortia purchasing. These areas are further described in the written presentation, which CoSN submits hereto.

Please direct any further questions about the meeting to the undersigned.

Sincerely,

/s/ Reg Leichty

Reginal Leichty  
Partner  
EducationCounsel

cc: Lisa Hone, Charles Eberle, Mark Nadel, Dania Ayoubi, Soumitra Das, Mark Walker, David Strickland, and Cara Voth of the Wireline Competition Bureau, and Michael Steffen



# **E-rate and Broadband Survey Final Results**

Keith Krueger  
October 2013

**Serving K-12 technology leaders who through their strategic use of technology, improve teaching and learning.**

### **Core Value**

The primary challenge we face in using technology effectively is human, not technical.

### **Audience**

School System Technology and education Leaders

For that reason, CoSN focuses on **Leadership** and **Policy**.

# The Survey

In August and September of 2013 CoSN partnered with MDR (Market Data Retrieval) to survey school district leaders from around the United States on E-rate, broadband and education networks.

- *Surveyed over 29,000 district technology leaders*
- *469 responses in approximately two weeks*
- *Responses came from 44 states*

*(Delaware, Vermont, South Carolina, Rhode Island, Utah and Hawaii not reporting)*

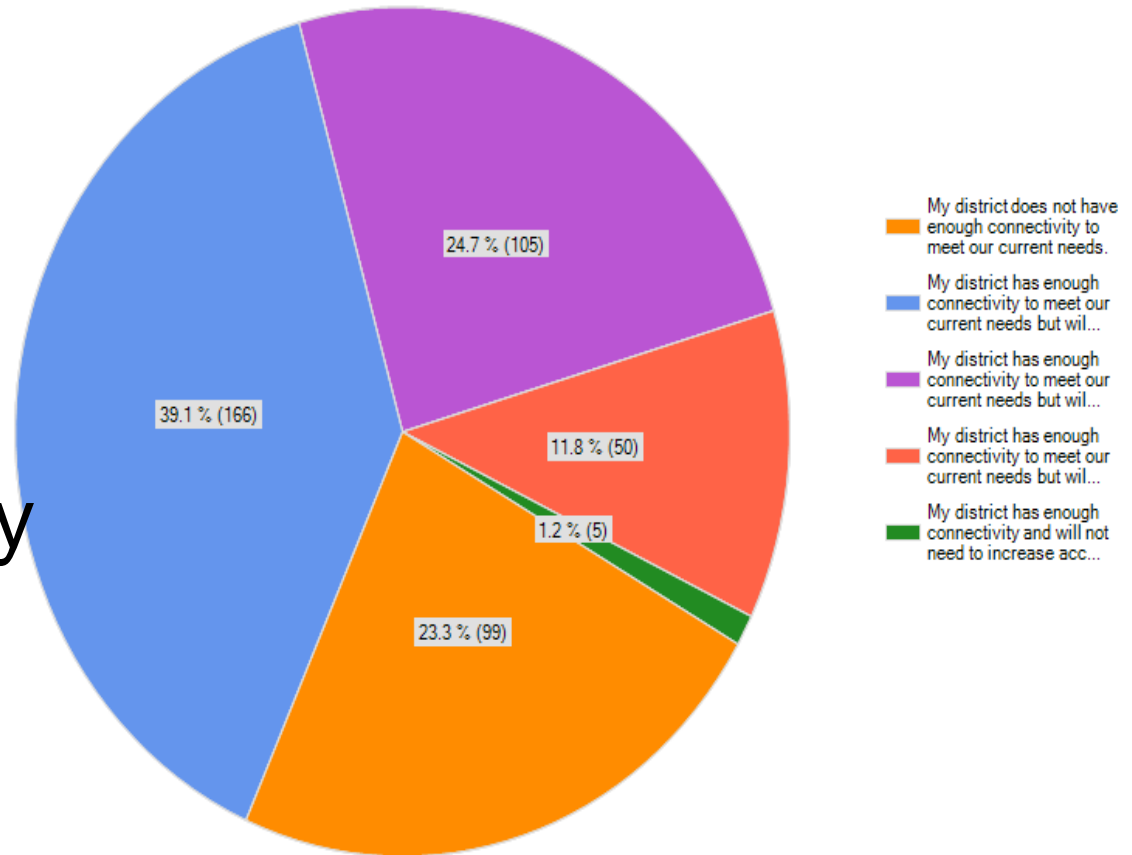
# The Survey

- *Diversity of geographic types*
- *Diversity of sizes of districts*
- *Respondents reflect the overall landscape of schools in our country today*
- *Less than 5% margin of error with a confidence rate of more than 95%.*

# Key Findings

Choose the statement below that best describes your district's connectivity and internet bandwidth needs.

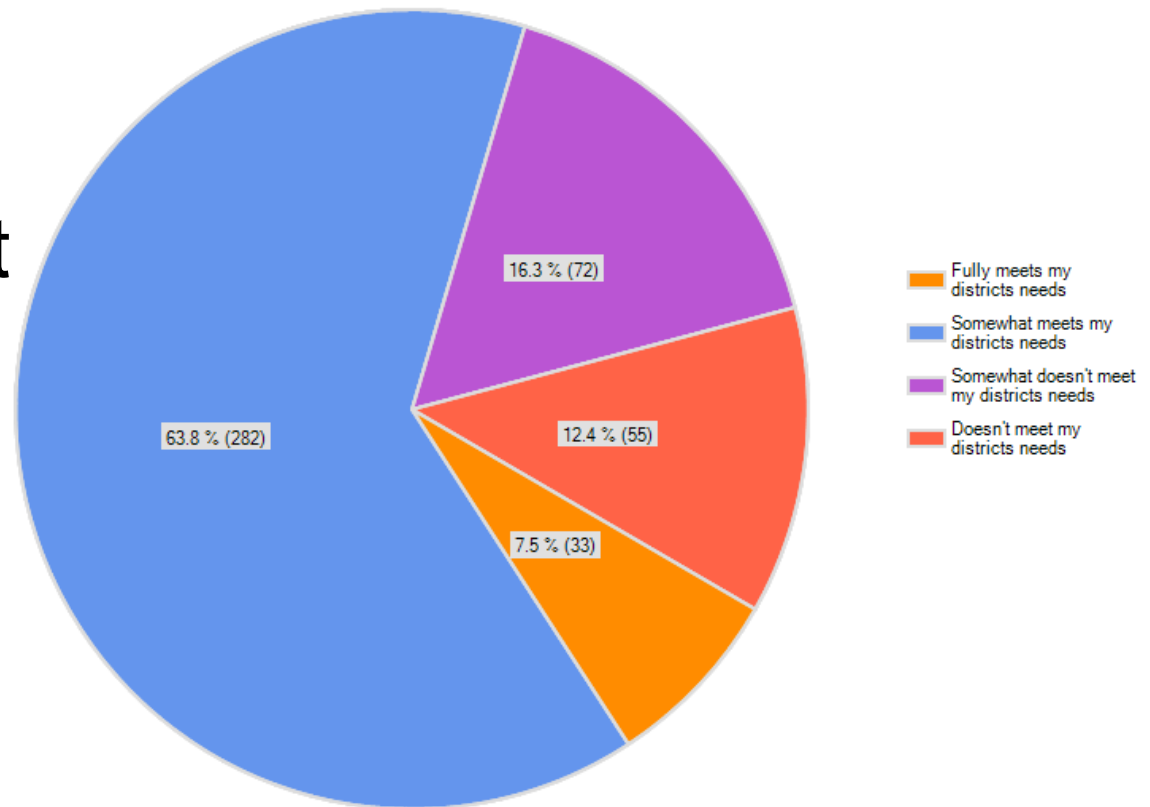
99% of districts need additional Internet bandwidth and connectivity in the next 36 months



# Key Findings

93% percent of districts believe current E-Rate funding does not fully meet their district's needs.

Which of the following best describes how the current level of E-Rate funding meets the needs of your district?





# Key Findings

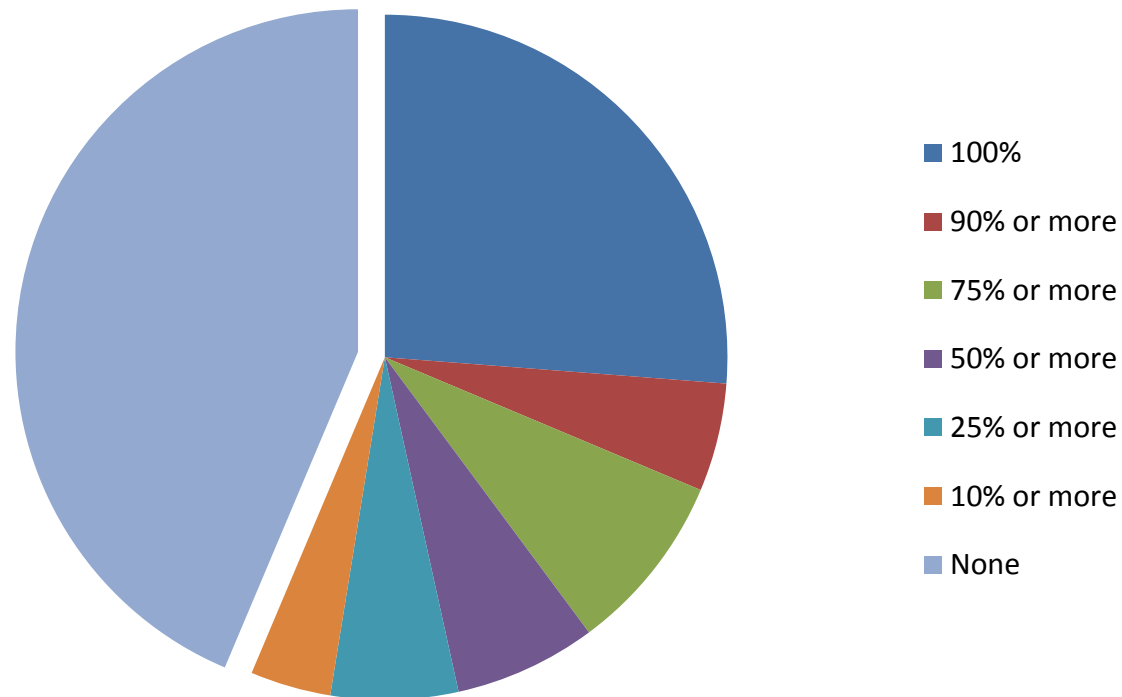
**43% of the school districts indicated that none of their schools can meet the SETDA goal of 100Mbps of internet access per 1,000 students today**

Only one quarter of districts report that 100% of their schools meet the goal



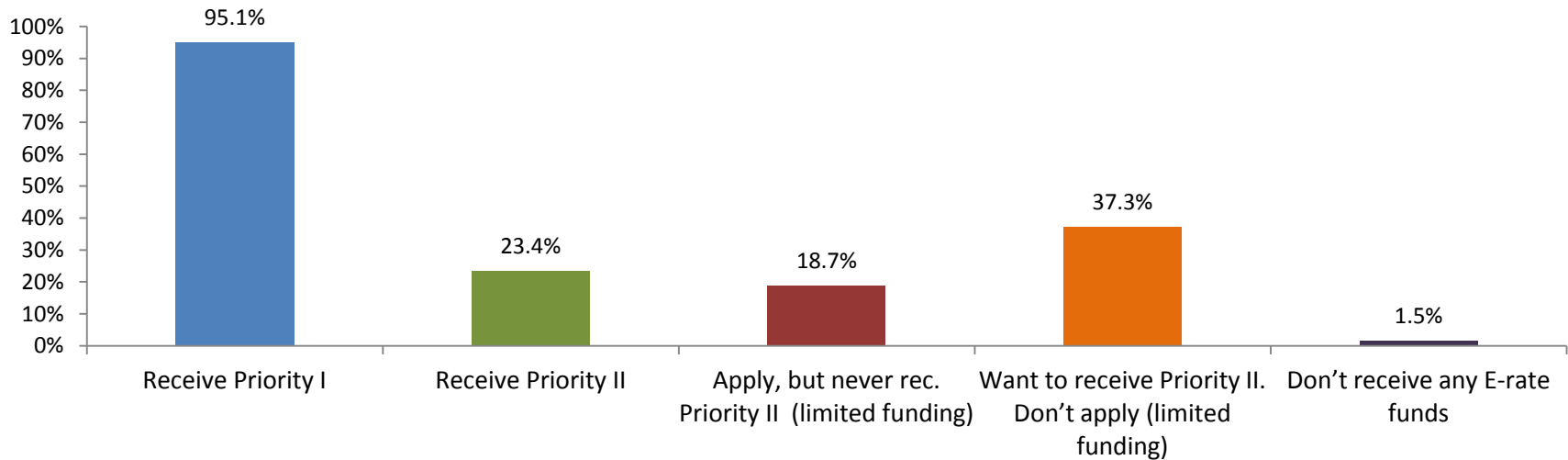
# Standards and Goals

Approximately what percentage of the schools in your district have bandwidth that meets the SETDA recommendation of "100 Mbps of internet access per 1000 students today?"



# E-rate Overview

Do you currently receive E-rate funding?  
Mark all that apply.

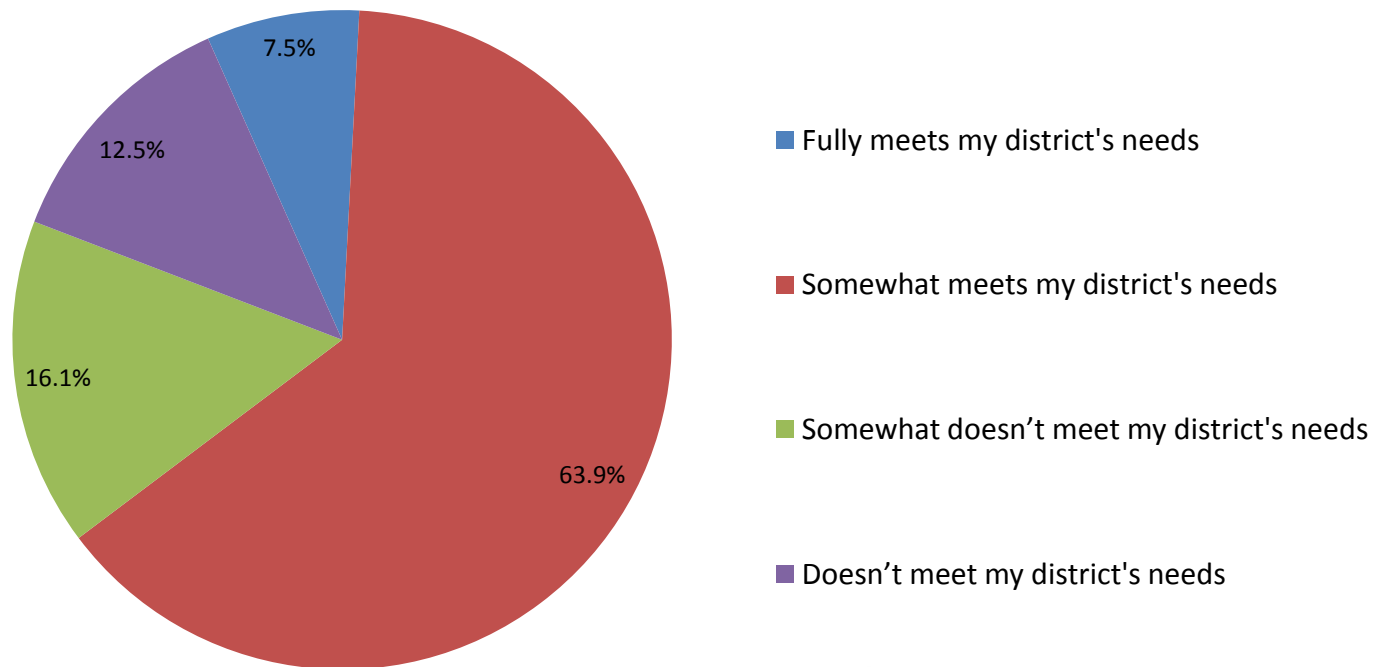


# E-rate

29% of districts not apply for some E-rate funding because they expected insufficient funds

# Only 7.5% responded that E-rate funding fully met their needs

Which of the following best describes how the current level of E-Rate funding meets the needs of your district?



# E-rate

FCC's 2010 E-rate Program and Broadband Survey found that 20% of the respondents' said needs were fully met.

- This change over time highlights the growing gap between available E-rate funds and the demands of robust digital learning environments for students.

2010 E-Rate Program and Broadband Usage Survey: Report, DA 10-2414, 26 FCC Rcd. 1, 2(2010), [http://transition.fcc.gov/010511\\_Eratereport.pdf](http://transition.fcc.gov/010511_Eratereport.pdf).

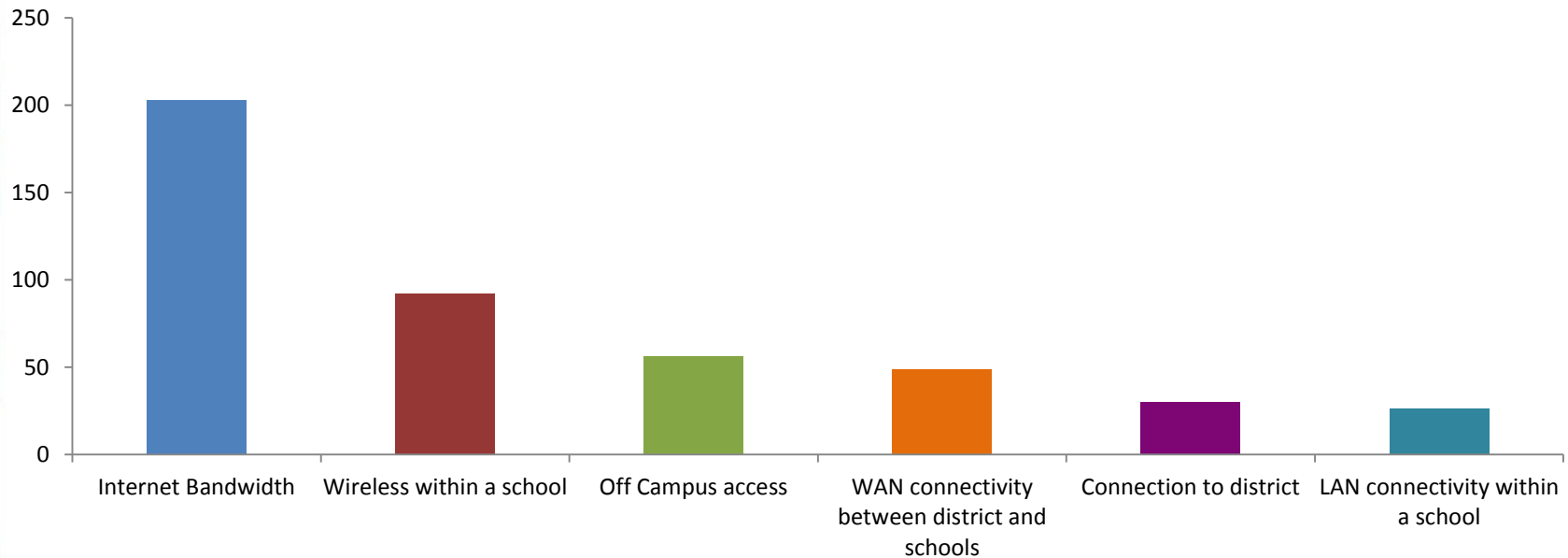
# Top Priorities for Erate \$

Needs identified in rank order were:

- #1 - Internet Bandwidth
- #2 - Wireless in a school
- #3 – LAN connectivity within a school
- #4 -- WAN connectivity between the school and the district

# Needs Priorities and Barriers

What is the most important connectivity upgrade needed in your district?



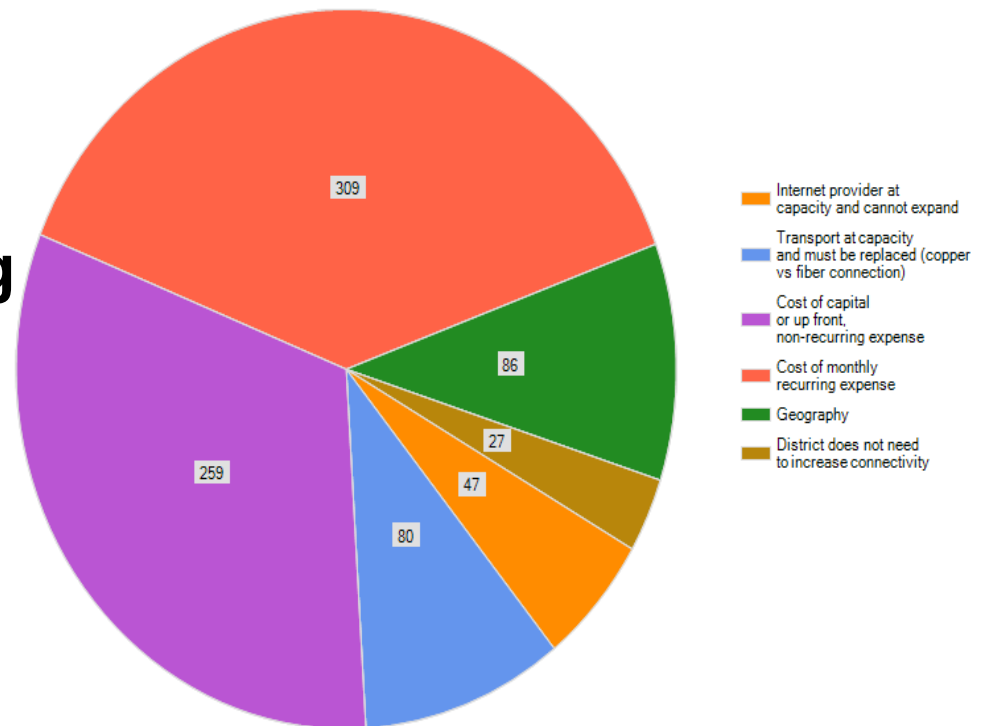


# Two Biggest Barriers

**Ongoing monthly costs**  
(79% agreement)

**Cost of capital  
or upfront/nonrecurring  
expenses**  
(59% agreement).

What are the most significant barriers to increasing connectivity? Mark all that apply.



# Other Barriers

Geography (20%)

Transport abilities already at capacity (19%)

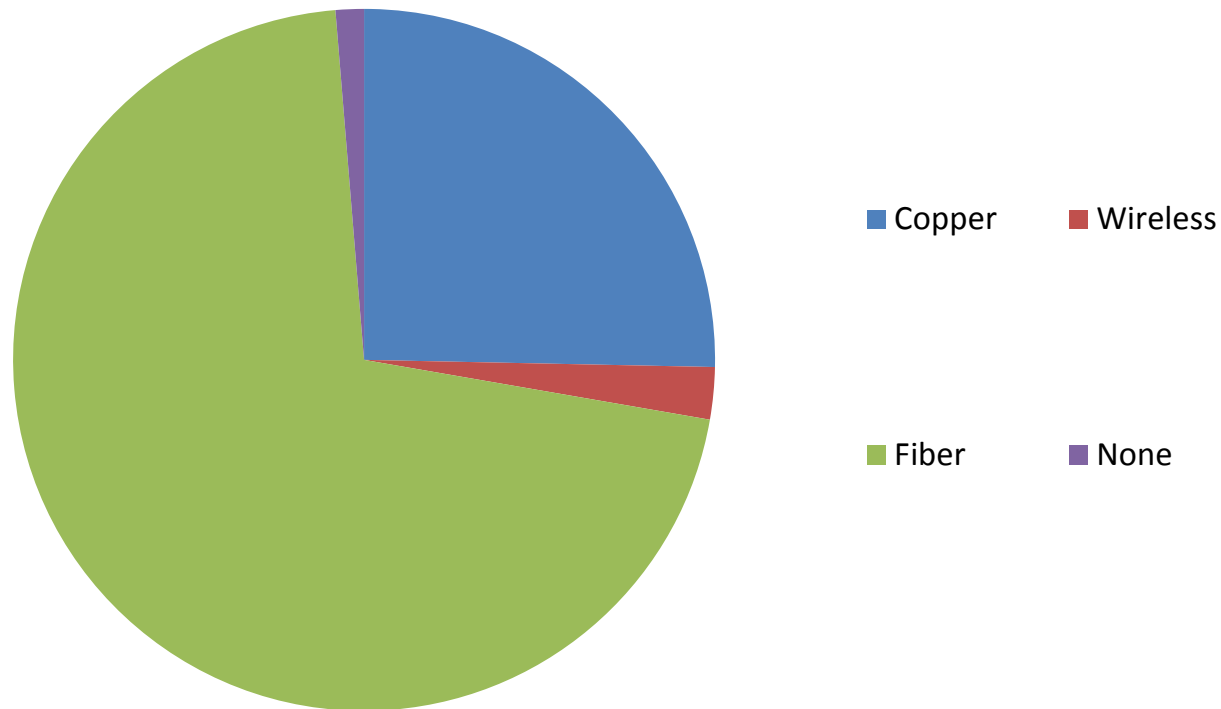
Internet provider abilities already at capacity (10%)

# Internal School Backbone

**26% of districts are using slower copper backbones and 2.3% are using wireless backbones in their school LAN**

# Internal Connections

What type of Backbone within the building does your typical school have?

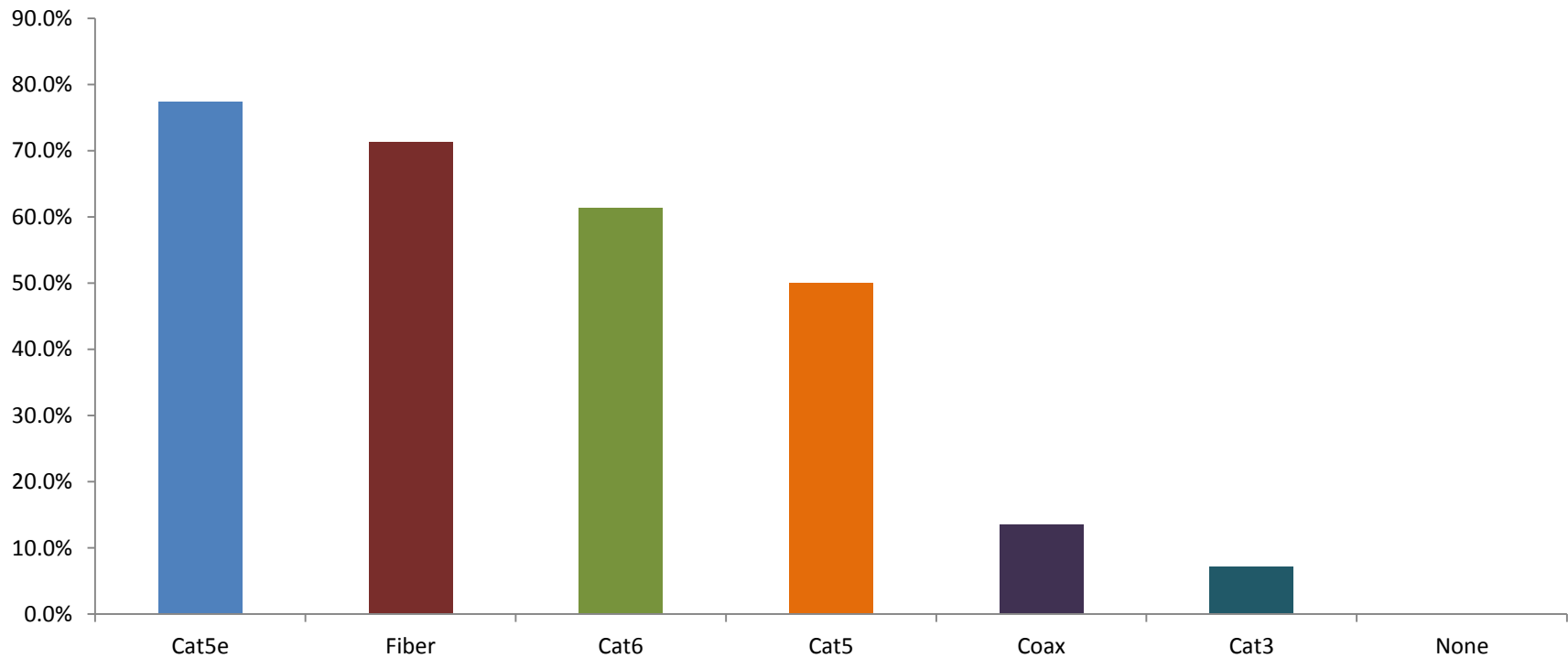


# Wired

**Districts report that half of school buildings use, in part, older and slower wiring (Cat5 and Cat3) that will not be able to carry data at the speeds needed today.**

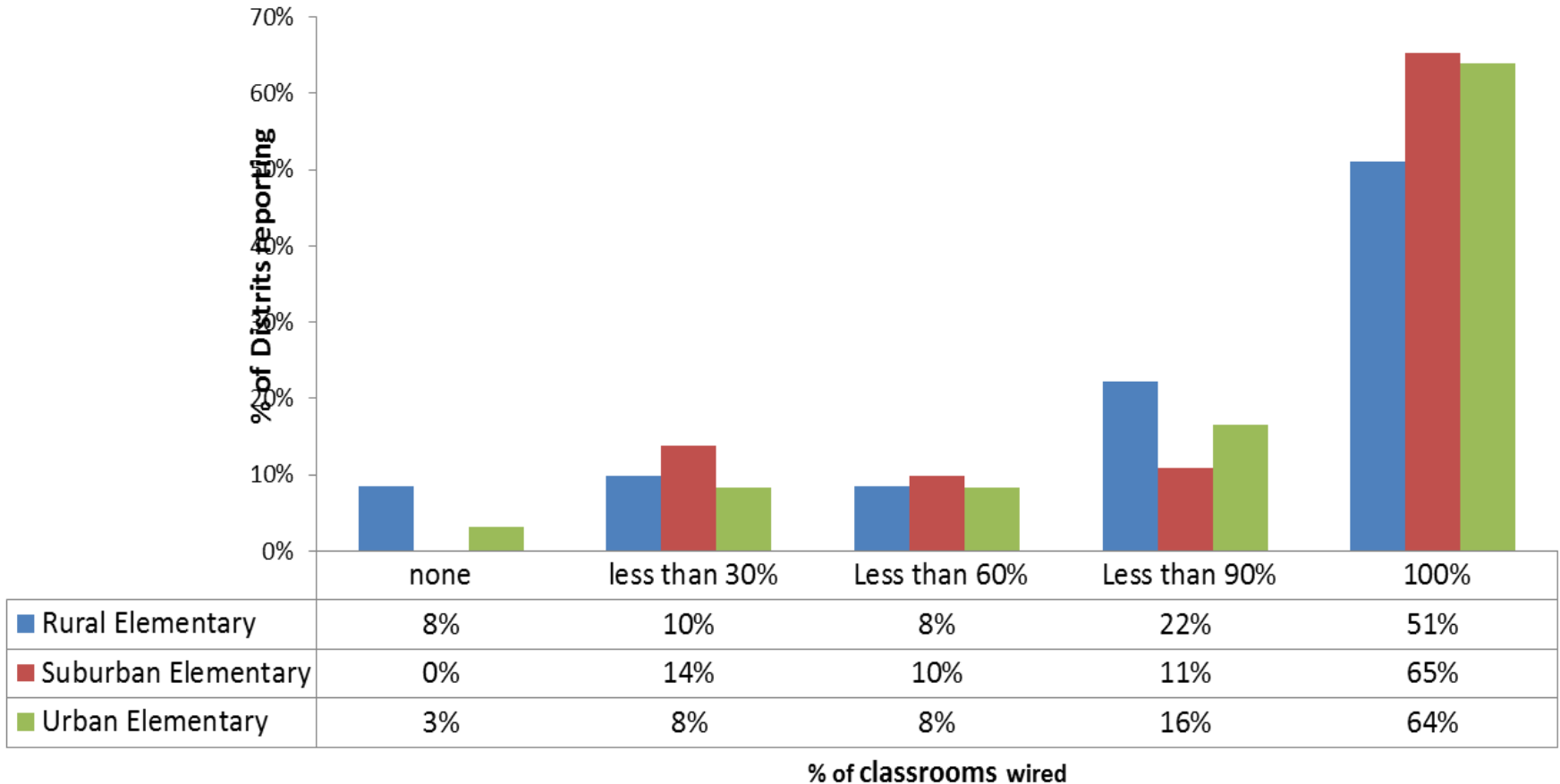
# Wired

What type of wiring is used in your typical school building today? Mark all that apply.



# Wireless

## Elementary Classrooms with Wireless Access





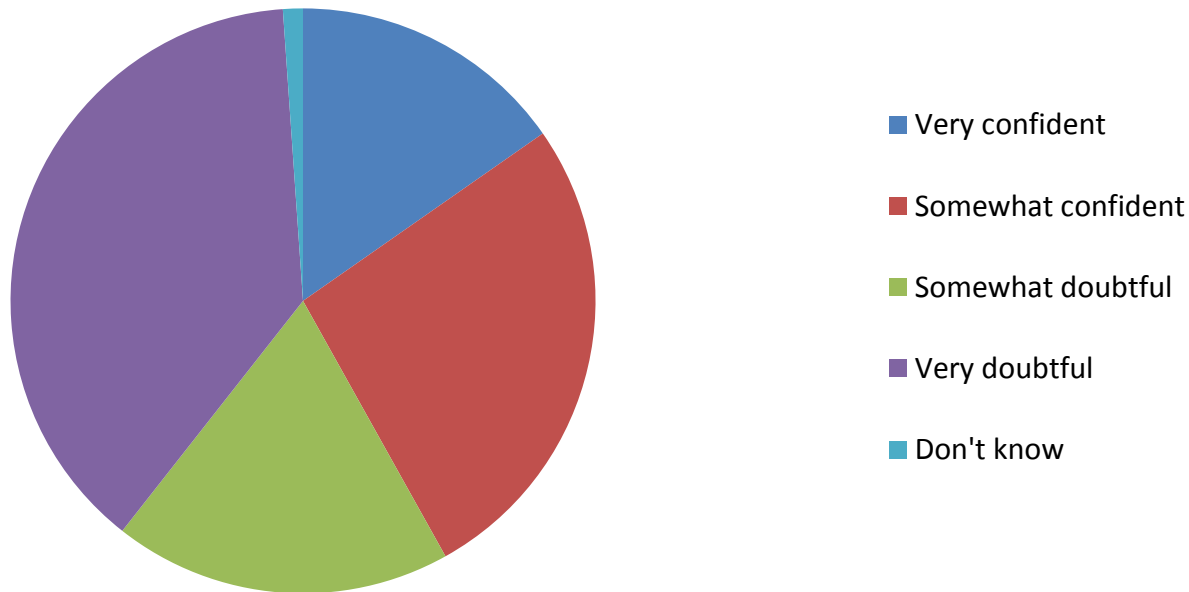
# Wireless

**There is a geographic digital divide with lower wireless classroom access available in rural schools**

- Only 51% of rural elementary schools have wireless access in 100% of their classrooms, and 8% have no wireless access.
- While suburban and urban schools have slightly better coverage for wireless access, no district reports full access in more than 71% of its schools.
- Across all geographic categories, almost 1/3 of the schools reported lacking wireless access in some classrooms.

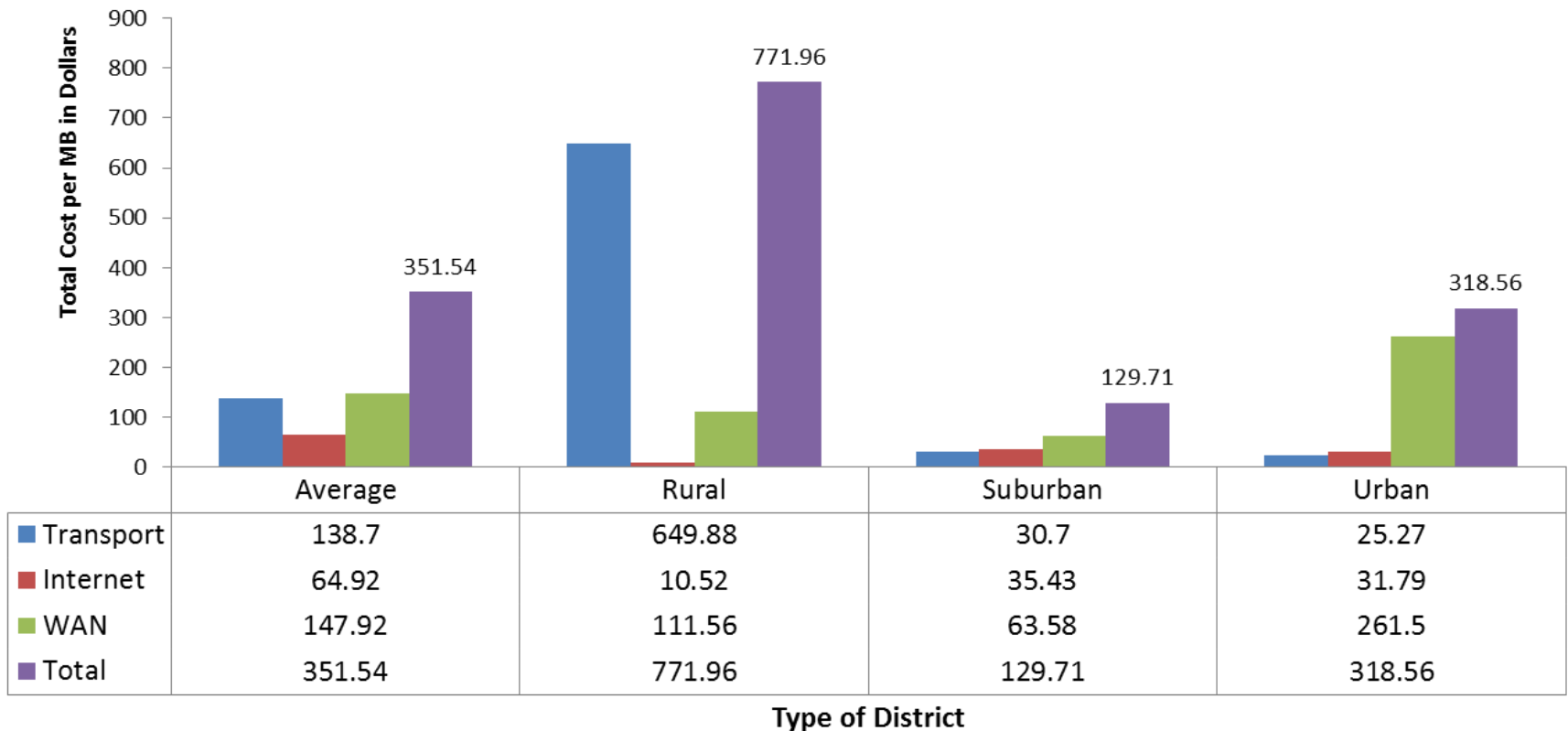
# 57% of districts do not believe their school's wireless networks have the capacity to handle a 1:1 deployment today

How confident are you that the typical school's wireless network would have the capacity to handle a 1:1 deployment this fall?

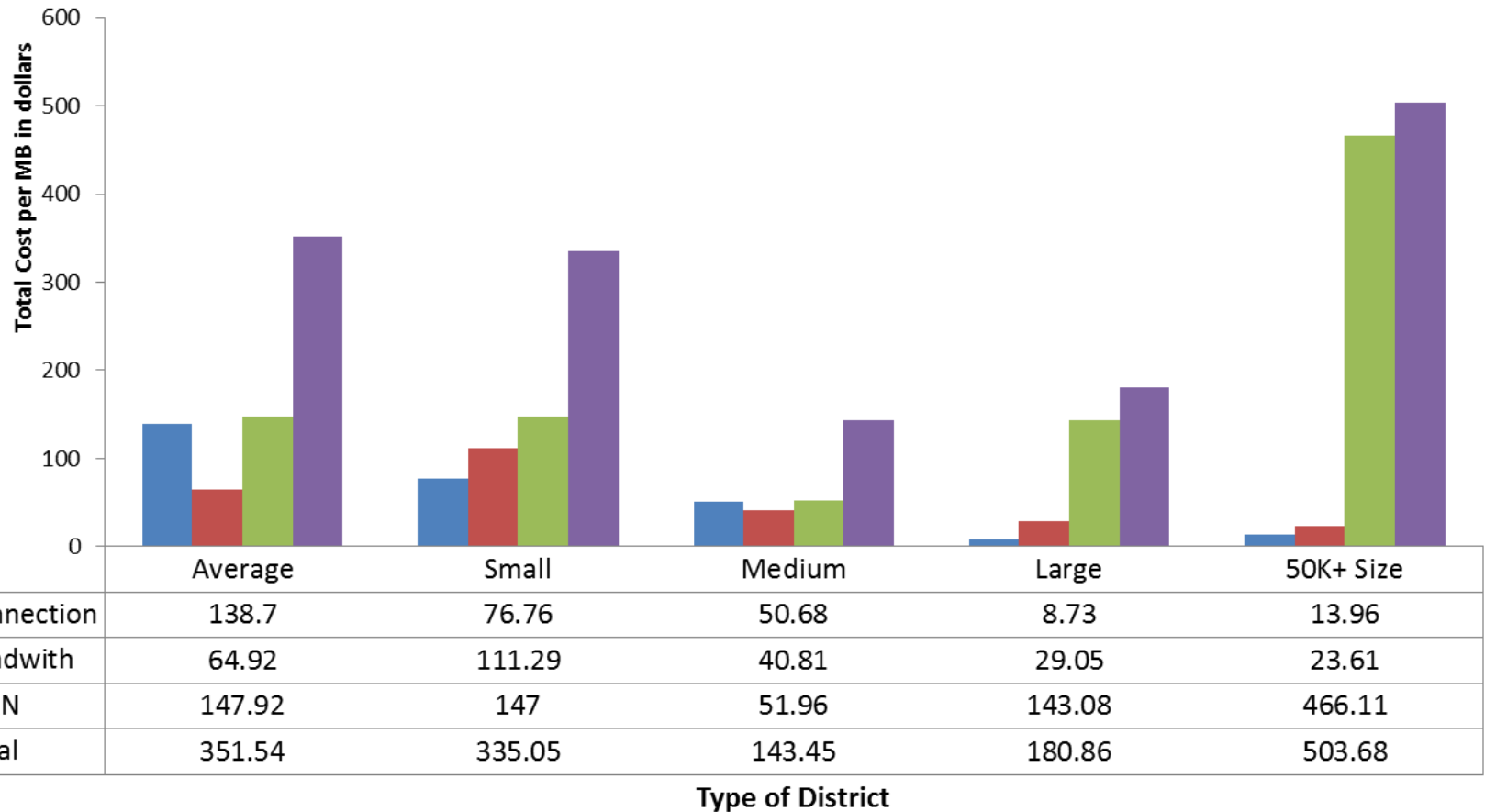


# Total Costs-- Type of District

Total Cost by Type of District

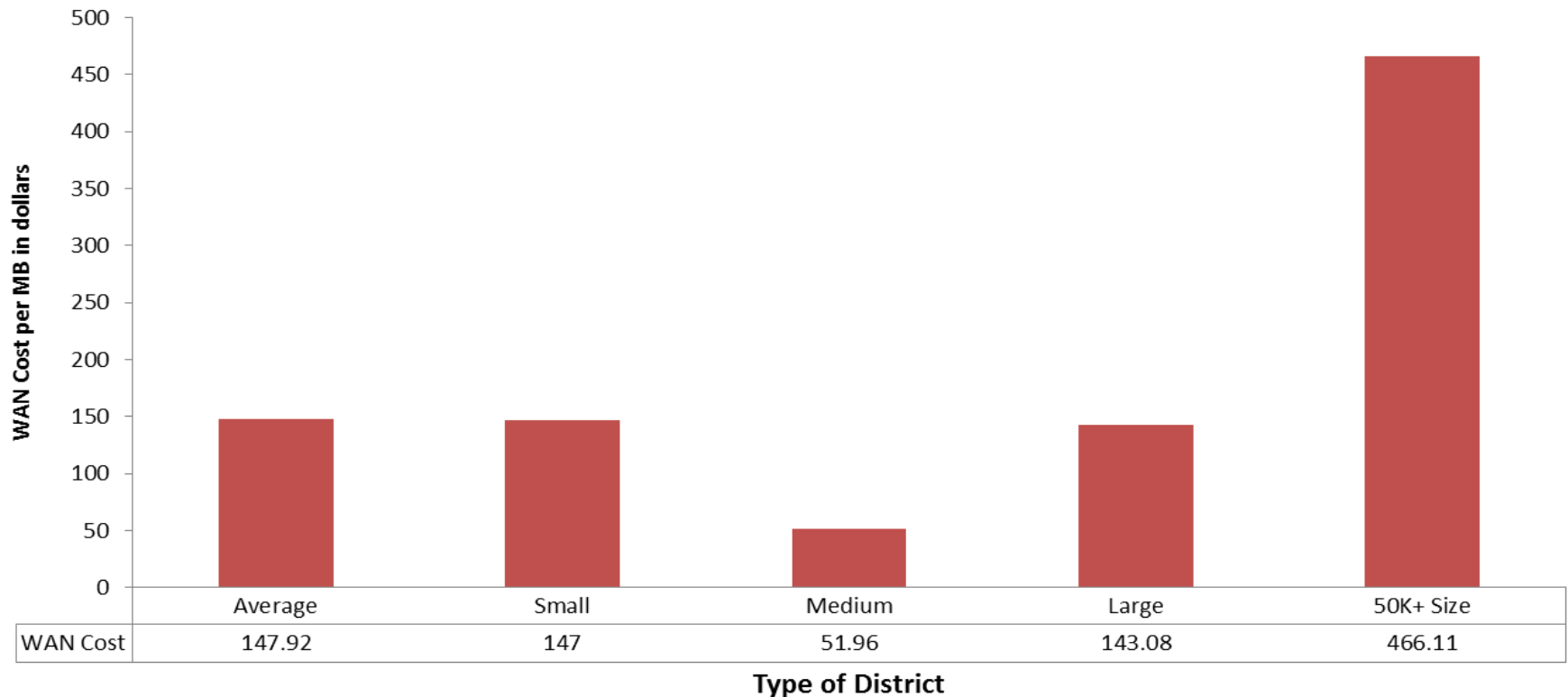


# Total Costs—Size of District



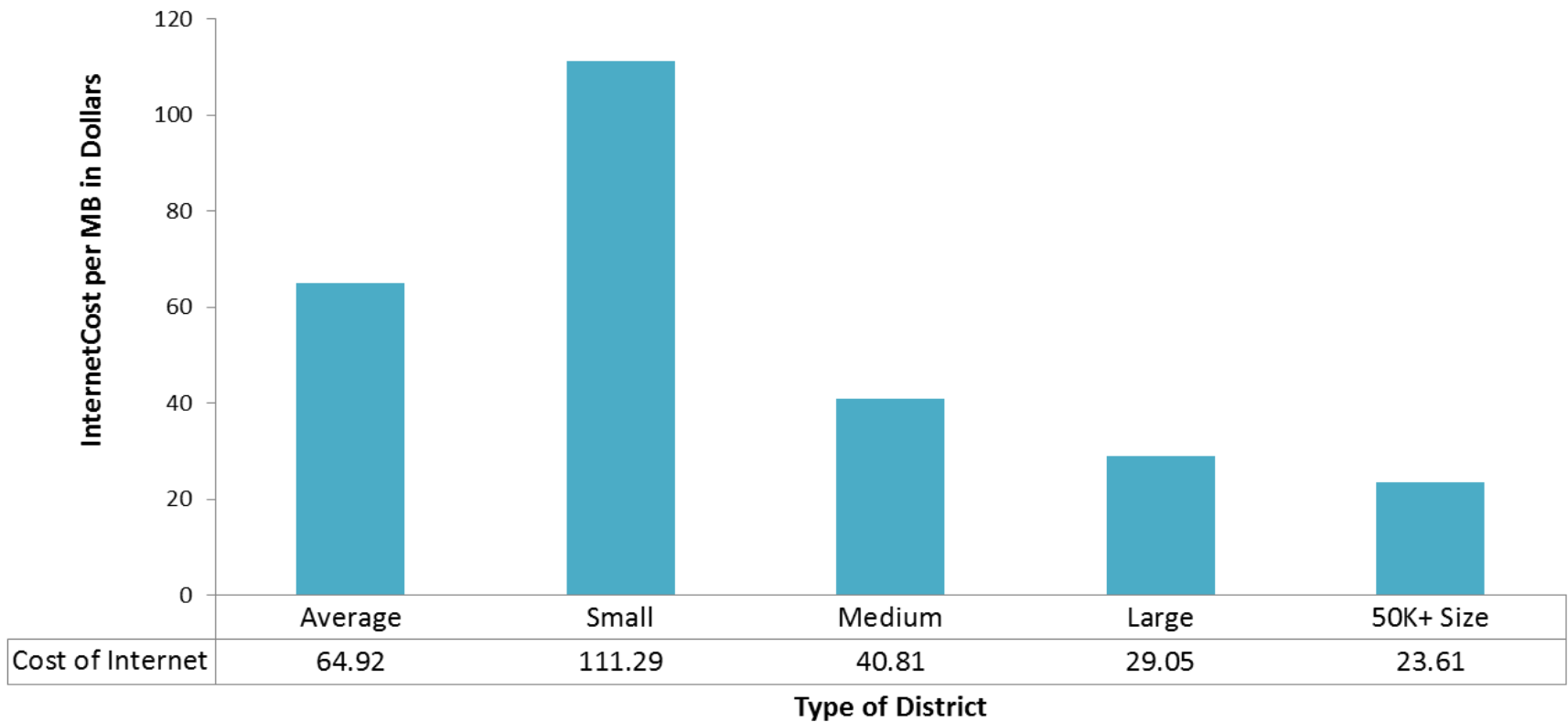
# Costs WAN

Cost of District WAN Connection



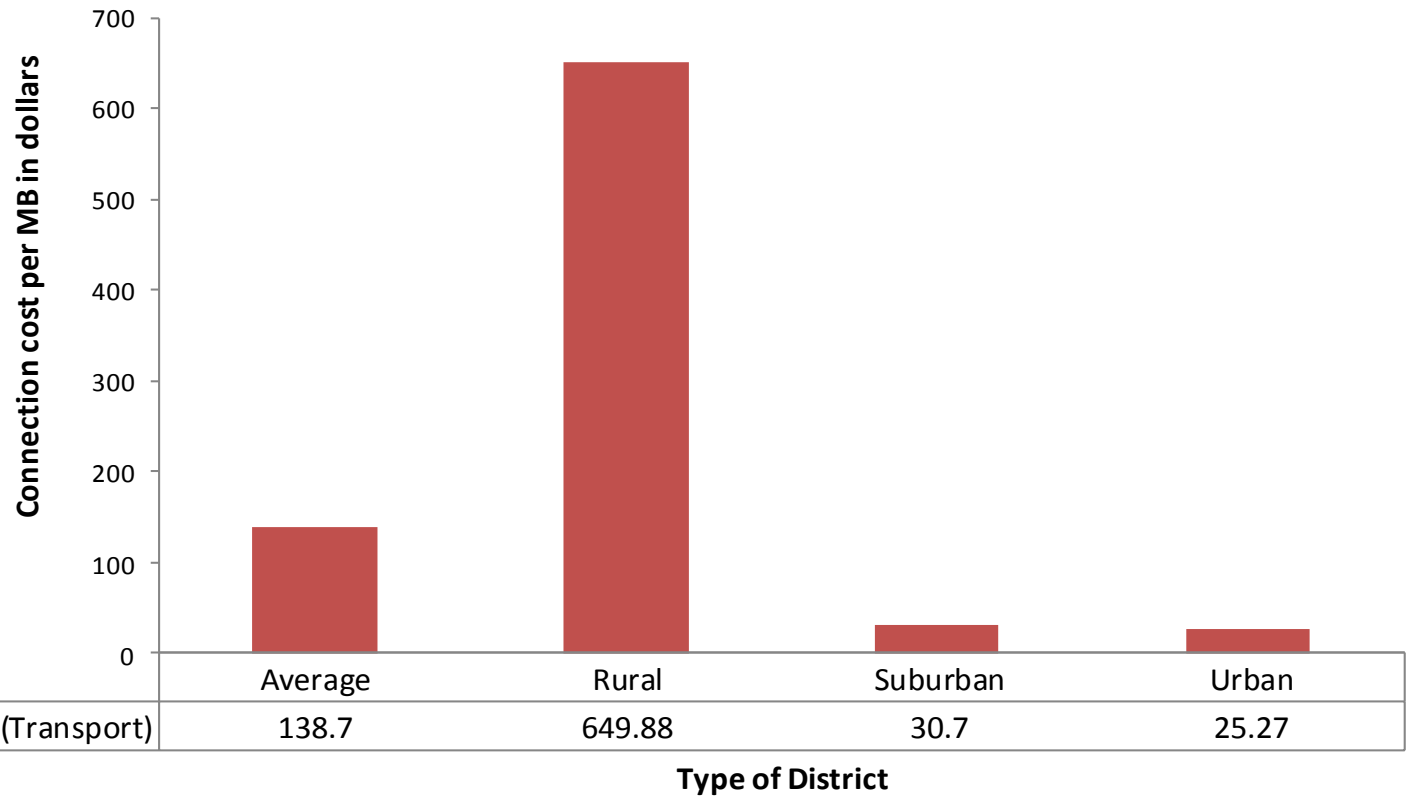
# Costs Bandwidth

Cost of Internet Bandwidth



# Costs Transport

**Cost of Connection Pipe (Transport)**





# Telephony--POTS

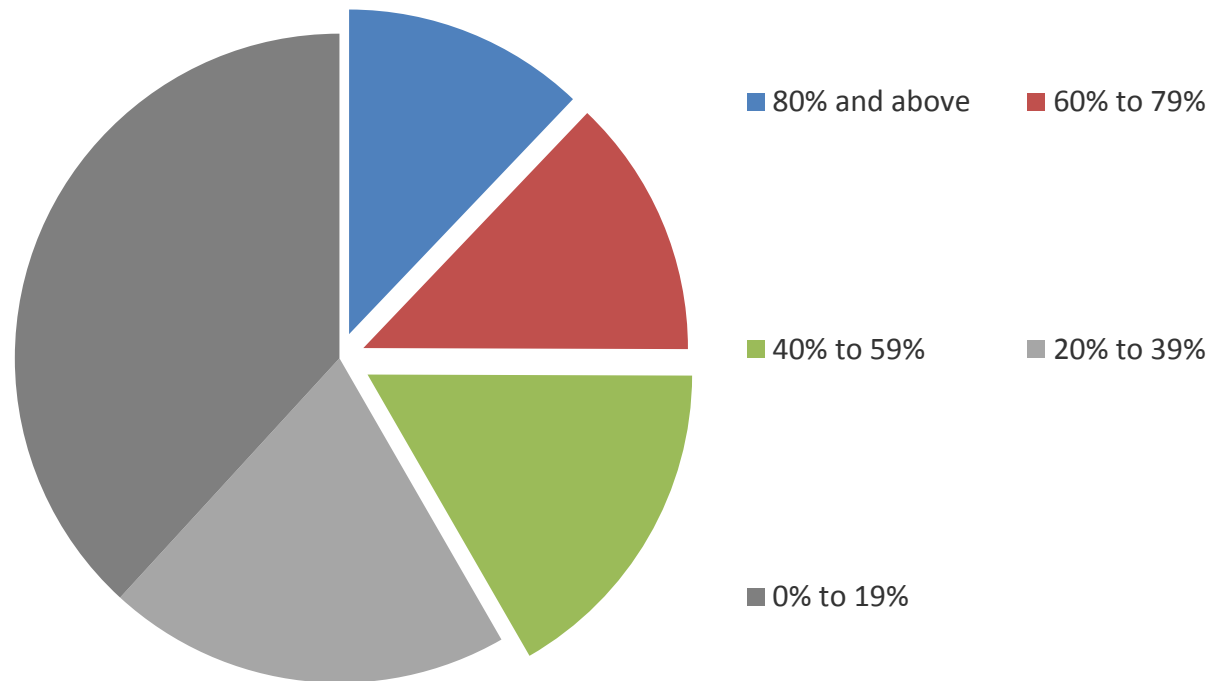
The fiscal harm to districts could be great if basic telephone service were immediately deemed a nonallowable expense under E-rate.

Transitional funding period for phasing out POTS needed

28% of districts use 50% or more of their E-Rate funding on POTS discounts.

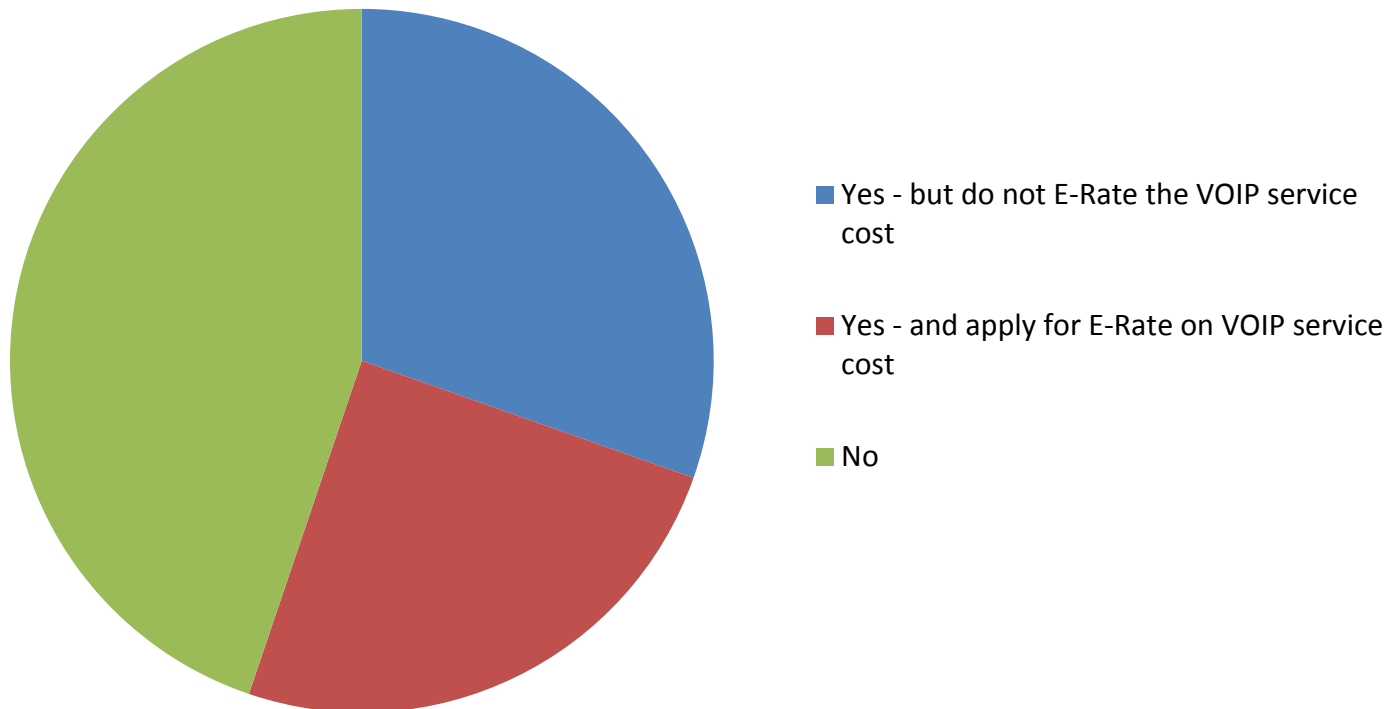
# Telephony--POTS

What percentage of your current E-rate funding goes to POTS (traditional telephone services)?



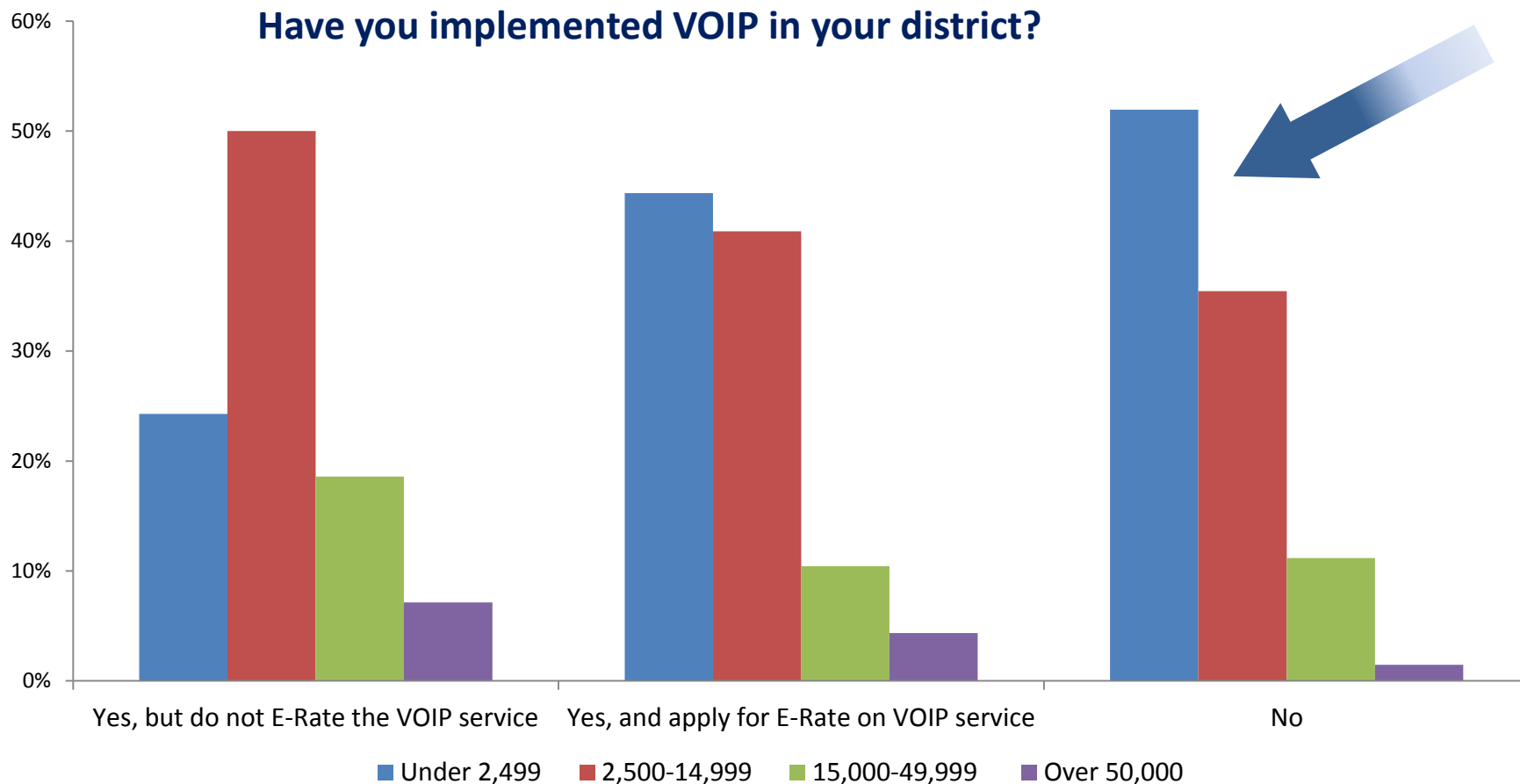
# Telephony-- VOIP

Have you implemented VOIP in your district?



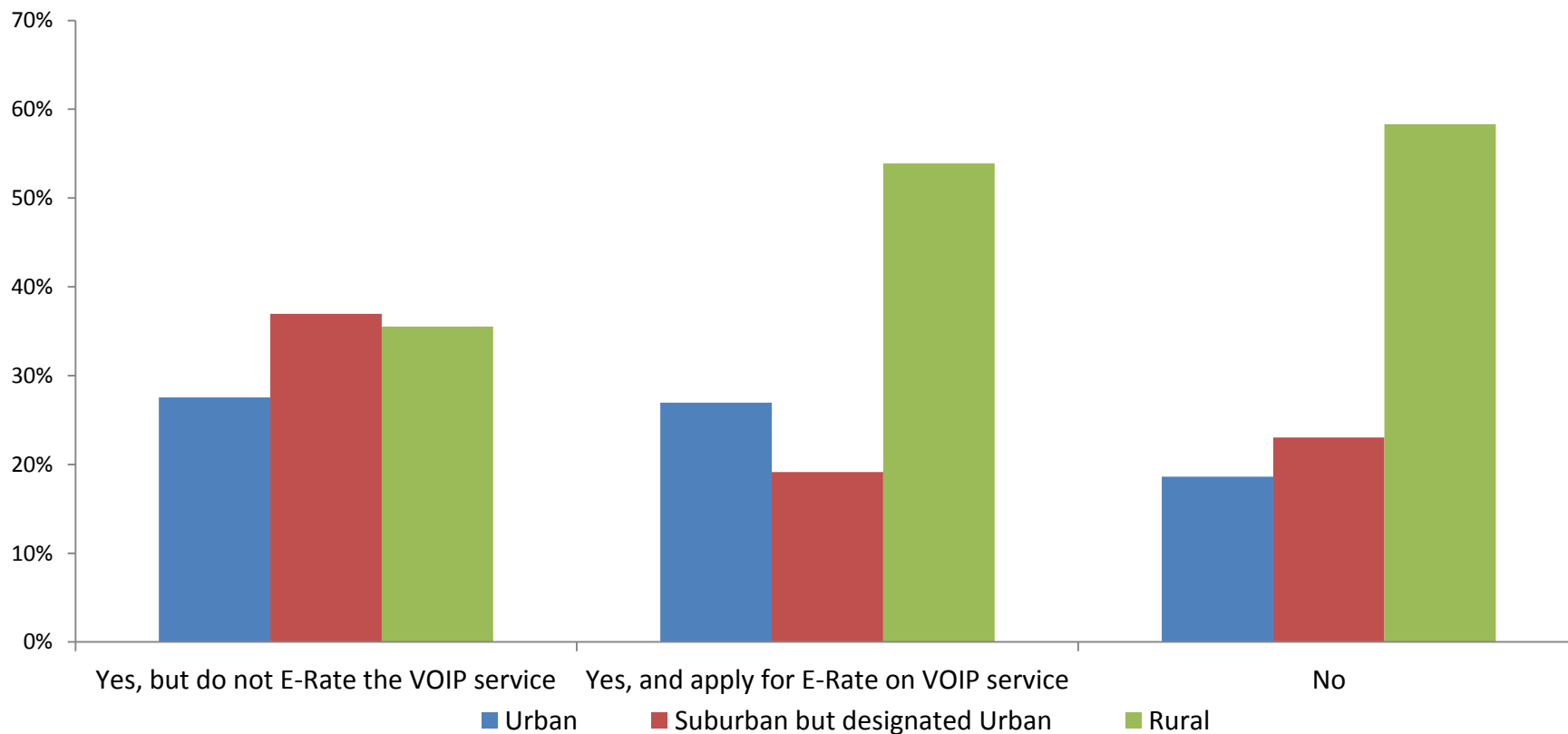
# Telephony-- VOIP

Have you implemented VOIP in your district?



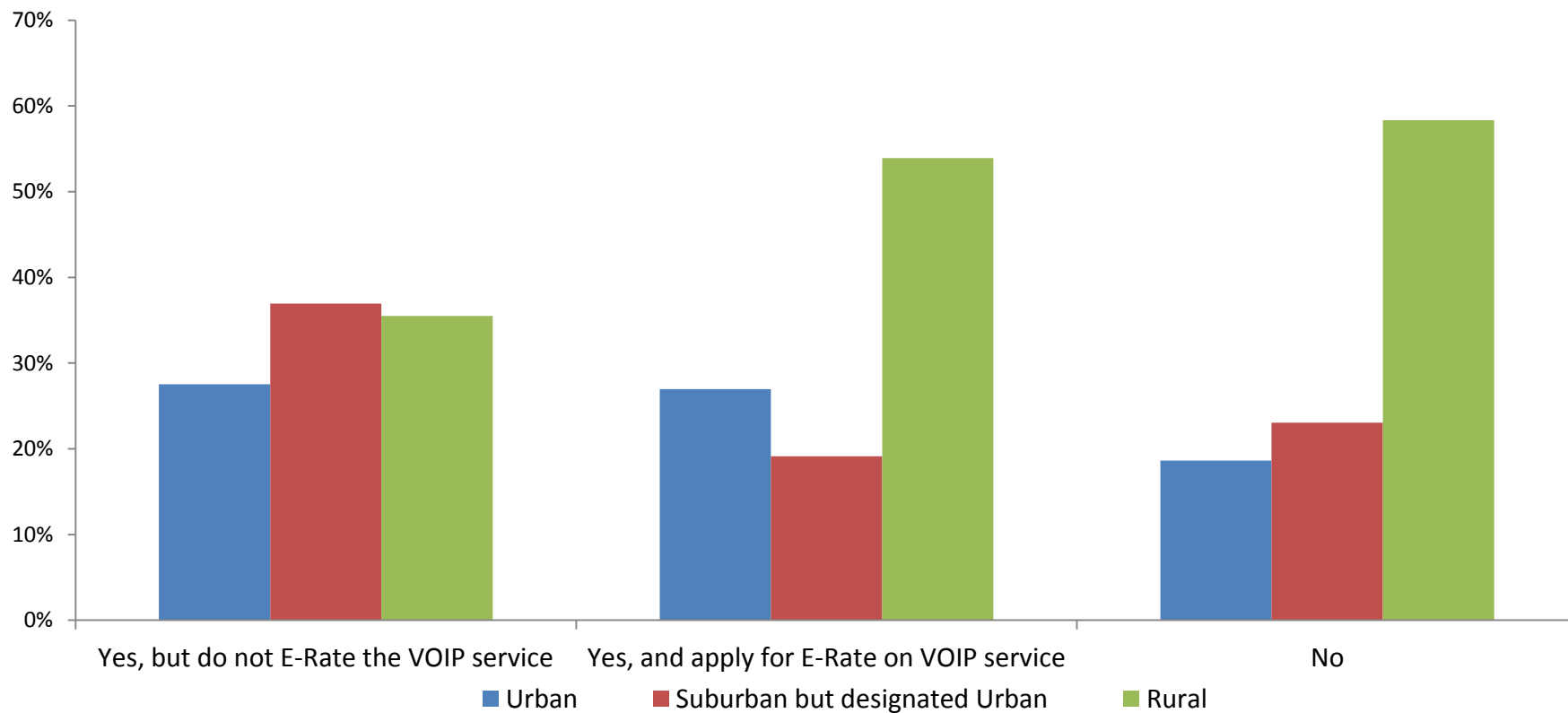
# Telephony-- VOIP

Have you Implemented VOIP in your District?

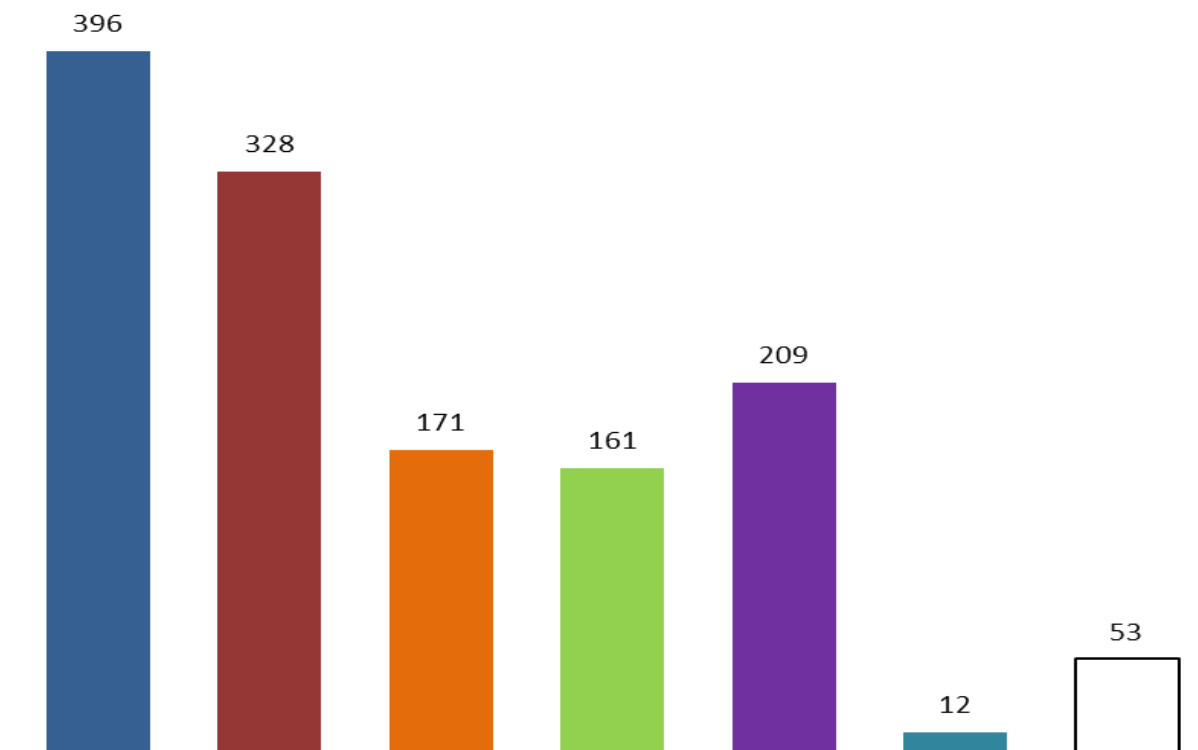


# Telephony-- VOIP

Have you Implemented VOIP in your District?



# Providers

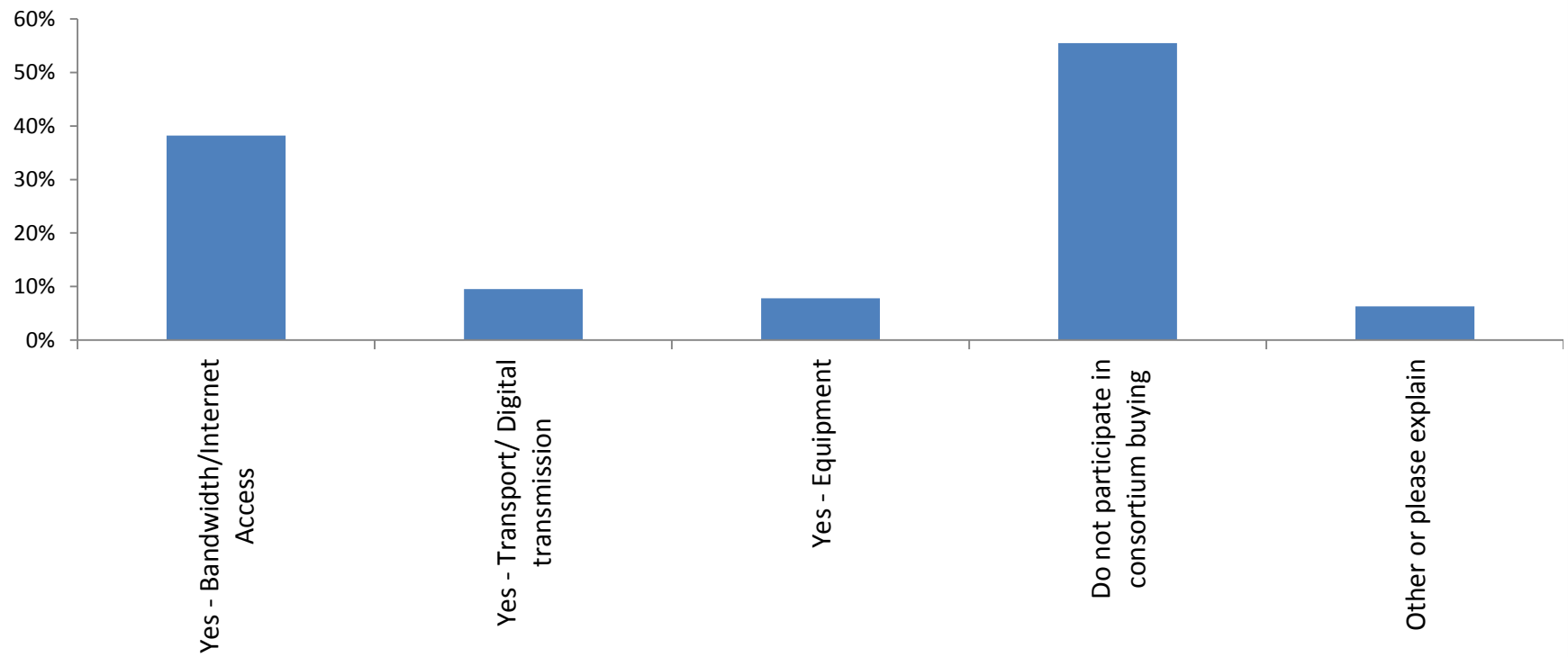


Traditional Wireline Telephone Company	396
Wireless/Cellular Company	328
Cable Company	171
State-Wide Education Network	161
Local Internet Provider	209
District Owned	12
Other	53



# Consortiums

Does your district participate in any consortium buying for E-rate services? Mark all that apply.





# **Findings and Recommendations**

Broadband and E-rate

# Findings and Recommendations

## **Compelling need for increased E-rate funding**

- The current cap on the E-rate is inhibiting the program from meeting districts' needs. 99% of districts agree they will need more broadband over the coming 36 months, placing even greater stress on an under-funded program

## **The fund would have to double to meet all the demands**

- Upgrade internal connections and meet growing bandwidth needs and support transport connectivity

## **Cost is the biggest barrier**

- Both ongoing, recurring expenses and up-front capital costs. While there has been much discussion about the need for a separate capital fund, it is also important to protect capital investments by funding ongoing maintenance costs

# Findings and Recommendations

## **Diverse needs of districts**

- One-size fits all per pupil formulas create many problems for addressing the needs of rural and large districts

## **Internal Connections must be robust**

- Districts currently lack sufficient internal connections – both wired and wireless – to meet their many needs for digital resources, online assessments, common core standards, and BYOD

## **Consortia Incentives**

- School systems are increasingly using consortia buying to lower bandwidth and network costs; however, incentives could be provided by the E-rate program to increase those trends.

# Findings and Recommendations

- **Increased funding needed for both capital and ongoing expenses**
  - Neither will be effective if viewed separately. As a country, we need to make a long-term commitment to ensuring that our classrooms are ready for learning today and tomorrow.
- **Strategic, end-to-end school network designs that address internal infrastructure and broadband connections as equal steps in delivering a robust learning environment for students are the key**
- **CoSN, as the premier professional association of school district technology leaders/CIO/CTOs, is committed to providing this sort of vendor neutral advice**



# Keith Krueger

## CEO

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